## Performance Improvement Plan

## SPA 6

Timeliness of Building Evacuation During
Fire Drills

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&

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# PLAN- Assemble the Building Emergency Response Team (BERT)

- Business
   Office/Alternative
   Supervisor/Alternate
- PHNS/Alternate
- CLNS/Alternate
- CW/Alternate

- PHIS/Alternate
- Custodial
   Supervisor/Alternate
- Security/Alternate
- Providers/Alternate





## **PLAN-** The Problem

• The problem

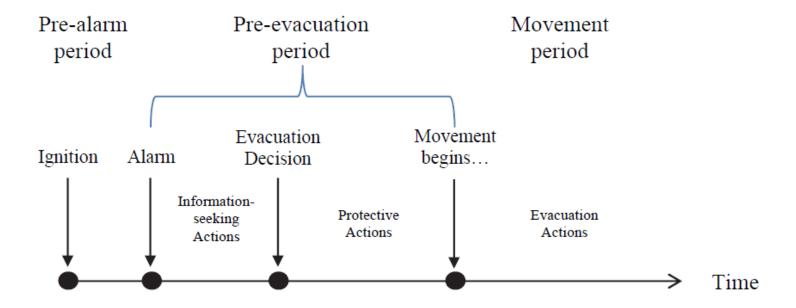
1st unannounced fire drill of June 2014 Evacuation Time (ET) of 22 minutes.

• Measured from time after alarm sounded to time all occupants to evacuate building safely, reach designated safety area and all clear reported by security.

## **PLAN-** The Problem

- Standard for evacuation time difficult to measure.
  - Many Variables to take into consideration
  - Evacuation Time Target
    - For Low hazard situation evacuation target time is 300 seconds or approximately 5 minutes after the evacuation signal has been given.<sup>2</sup>

# Components of Evacuation Time<sup>2</sup>



COUNTY OF LOS ANGELES

# **PLAN-** Examine June 2014 Fire Drill Evacuation Time

| Date/Time                         | MLK Jr. Center for<br>Public Health<br>Building Description                                                                                 | Safety<br>Training<br>Method | Alarm<br>Type                     | Data<br>Collection<br>Method                                                   | Sample<br>Size <sup>A</sup> | ADA Participant s | Evacuation<br>Time <sup>B</sup> | Notes                                                                                                                                                            |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------------|--------------------------------------------------------------------------------|-----------------------------|-------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tuesday,<br>6/24/2014@<br>8:30 AM | Two story building. Two sets of Stair Wells  1st Floor –Clinics A, B, C, D and Business office.  2nd Floor – Staff and Administrative Suite | Fire Drill                   | Code Red called over the Intercom | Timed at<br>start & end<br>if Building<br>Evacuation<br>and at " all<br>clear" | N= 43                       | None              | 22 minutes                      | Base line data 4 Clinics in Progress Debriefing: Safety Refuge Area, Roll Call, Clinic/Patient Count, Other visitor count, Missing equipment, BERT members roles |

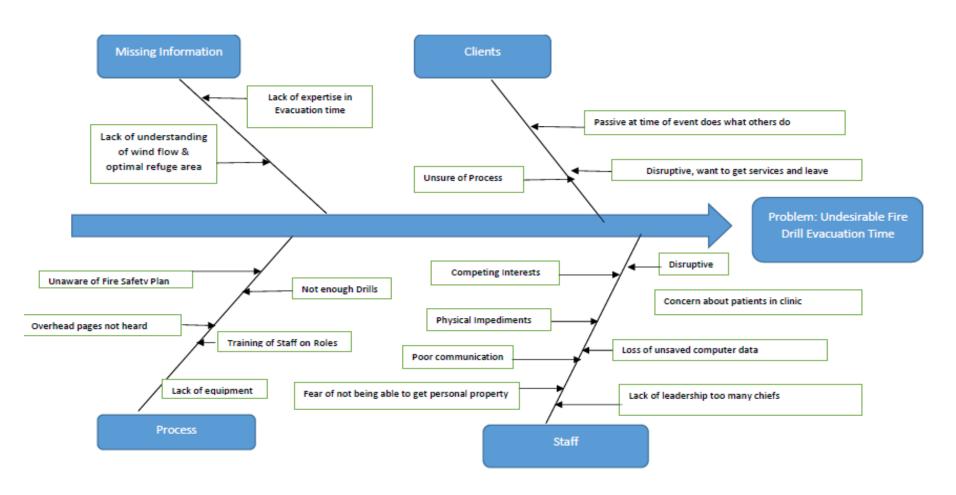
## Nomenclature

- A Sample size includes all staff and clients who signed in/out on employee log sheets and security log sheets respectively.
- B Evacuation time includes pre-movement time (recognition time, decision time and coping time), time for all occupants to evacuate building safely, reach designated safety area and all clear reported by security.





# Plan – Identifying All Possible Causes



## **PLAN-** Strategies Identified

- Increase representation on
   Safety Committee from each
   SPA 6 business
- Implement Evacuation
   Awareness Campaign Staff
   Engagement Evacuation Drill
   (SEED) Plan
- Informal survey of staff in each business unit to get a better understanding of barriers and possible solutions to evacuation drill times.







# **PLAN-** Strategies Prioritized Feasibility/Impact

|             | Impact |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |
|-------------|--------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|             |        | Lower | Higher                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |
| Feasibility | Higher |       | Buy-in from Nurse Managers and Supervisors of each unit to introduce idea of QI Project during all staff meetings. QI/PI Baseline data Evacuation time of Fire Drill and subsequent outcomes presentation to all staff on a quarterly basis. Business Units to have a representative and alternative attend quarterly BRET committee meeting. Identify Champions. Awareness training – personal items( keys purses bag). Staff to identify Grab and Go spot on their desk Frequent drill reminders during all staff meetings |  |  |  |  |
|             | Lower  |       | Fix overhead paging system – dead zones in building Request New and updated BERT equipment.                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |  |

## **PLAN**

## Aim Statement:

If we implement the Staff Engagement and Evacuation Drill (SEED) plan by October 2014, we will safely improve fire drill evacuation time from 22 minutes to 5 minutes by December 2016.





# DO-SEED Strategy Implemented

- ID and train BRET members and Alternates on Fire Drill and Evacuation procedures
- QI/PI/SMART goals training of all BRET members
- Increase representation on Safety Committee from each SPA 6 business units
- Present and discuss data and outcomes at Quarterly "All Staff" Meetings.





# DO-SEED Strategy Implemented

- Debrief with BERT immediately after evacuation drill lessons learned and gaps in knowledge.
  - Safety
  - Safety/Refuge Area
  - Roll Call locations
  - Clinic/Patient/Visitor Counts
  - ET Tracking Tool
  - Awareness Grab and Go





# Do-Tracking Implementation

| Statement of measure          | SPA 6 will improve building evacuation time during fire drills.                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------|
| Target population             | All Staff and Clients signed in on the day of the unannounced Fire Drill                             |
| Numerator                     | N/A                                                                                                  |
| Denominator                   | N/A                                                                                                  |
| Source of data                | Evacuation Time (ET) Tracking Log                                                                    |
| Target goal                   | Five (5) minute ET by the end of 2016                                                                |
| Who tracks data and how often | Facility Administrator/designee will track data bi-<br>annually after each fire drill from 2014-2016 |





# STUDY Check the Results

## SEED Strategy Results

- Prior implementation
  - Evacuation time 22 minutes
- 2 years after implementation
  - Evacuation time range 9-5 minutes
- Goal
  - Evacuation time 5 minutes.

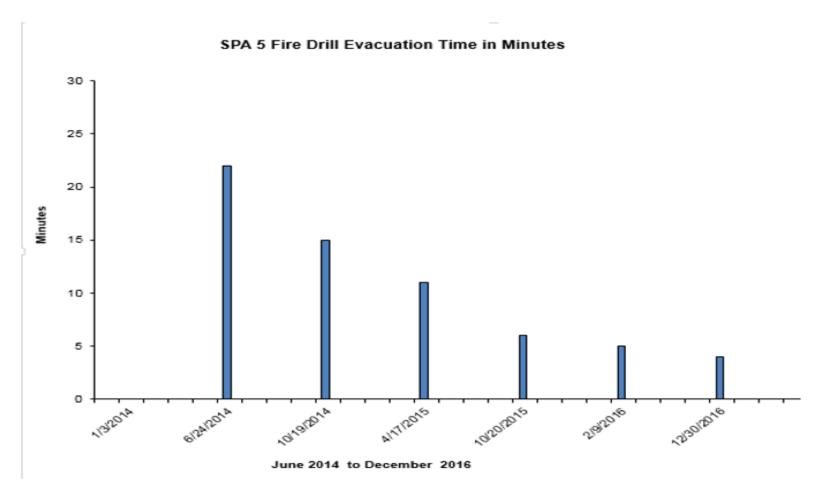




# **STUDY**

| Date/Time                          | Safety<br>Training<br>PDSA | Alarm<br>Type | Data Collection<br>Method                                      | Sample Size | ADA<br>Participants | Evacuation<br>Time <sup>B</sup> | Notes                                                                                                                                                                                                                                                                                                                     |
|------------------------------------|----------------------------|---------------|----------------------------------------------------------------|-------------|---------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6/24/ 2014 @<br>8:30 AM            | Fire Drill                 | Code Red      | Timed at start & end if Building Evacuation and at "all clear" | N= 43       | None                | 22 minutes                      | Base line data 4 Clinics in Progress  Debriefing/PDSA: Safety Refuge Area, Roll Call, Clinic/Patient Count, Other visitor count, Missing equipment, BERT members roles, staff delay in leaving bldg. (patient and personal belongings concerns). Reinforce training on stair evacuation and Personal belongings Awareness |
| 10/9/2014 at<br>10:30 AM           | SEED Debriefing Post Drill | As Above      | As Above                                                       | N= 53       | None                | 15 minutes                      | 4 Clinics in Progress No adverse events PDSA strengths and weakness discussed during All Staff Meeting.                                                                                                                                                                                                                   |
| Tuesday,<br>4/17/2015<br>@10:00 AM | SEED Debriefing Post Drill | As Above      | As Above                                                       | N=43        | None                | 11 minutes                      | 4 Clinics in Progress No adverse events A strengths and weakness discussed during All Staff Meeting                                                                                                                                                                                                                       |
| 10/20/2015 @<br>9:00 AM            | SEED Debriefing Post Drill | As Above      | As Above                                                       | N=92        | None                | 6 minutes                       | 4 Clinics in Progress No adverse events A strengths and weakness discussed during All Staff Meeting                                                                                                                                                                                                                       |
| 2/9/2016@<br>10:45 AM              | SEED Debriefing Post Drill | As Above      | As Above                                                       | N=96        | None                | 5 minutes                       | 4 Clinics in Progress No adverse events PDSA successes during All Staff Meeting.                                                                                                                                                                                                                                          |
| 12/30/2016<br>@ 2:13 PM            | SEED Debriefing Post Drill | As Above      | As Above                                                       | N=45        | None                | 4 minutes                       | 3 Clinics in Progress No adverse events PDSA successes during All Staff Meeting.                                                                                                                                                                                                                                          |

## Fire Drill Evacuation Times







## ACT- To Standardize or Not?

## What action should be taken next?

- 1) <u>ADOPT</u> The Staff Engagement and Evacuation Drill (SEED) plan has been standardized in SPA 6 BEC Programs.
- 2) <u>ADAPT</u> –During our next PDSA cycle will need to add ADA and or stair evacuation travel, evening drills and add other emergency scenarios as prescribed by our BERT and safety committee





## TA Public Health

PROGRAM NAME: PROJECT TITLE:

DPH STRATEGIC GOAL/OBJ.:
PROJECT TIMELINE:
PI SPECIALIST:

EMAIL/PHONE NUMBER:

#### PLAN

Identify an opportunity and Plan for Improvement

#### Getting Started

The Building Emergency Coordinator (BEC) Program is designed to increase the safety of County Employees and the public in County Facilities while ensuring the continuation of government services after a disaster. SPA6 BEC is charged with maintaining a skilled, competent and empowered workforce. We measured a baseline evacuation time (ET) of 22 minutes at our first fire drill of the year in 2014. Review of the literature and consultation with our neighbors at Fire Station 64 informed us of the need to plan an intervention that would decrease our evacuation time to a recommend 9-5 minute range. Our plan is to improve on building evacuation times during bi-annual fire drills from 2014-2016.

### 2. Assemble the Team

Dr. Curley and Narita Wheat, assembled a Building Emergency Response Team (BERT) to include members from each SPA6 business unit.

## 3. Examine the Current Approach

Mapped out current process and identified problems. Root Cause Analysis – helped us to get a better understanding of the problem which enhanced our ability to focus on areas we could or could not change. SPA 6 Building Emergency Response Team (BERT)

Timeliness of Building Evacuation Fire Drills

DPH Strategy 2; Obj. 2.1.d & 2.4.d

DPH Strategy 5; Obj.5.1.d 6/24/2014- 12/20/2016

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#### 4. Identify Potential Solutions

- Educate all staff on PI and PDSA Cycles and fire expert recommendations.
- ID Champions
- Institute PDSA's Q 6 months.
- Debrief BERT after evacuation drill. ID lessons learned and gaps in knowledge.
- Brainstorm with staff on what went well and what could have done better
- Increase representation on BERT from each SPA 6 business unit and alternate.
- Discuss outcomes of PDSA cycles at Quarterly All Staff Meetings, clinic meetings, PHI meetings and PHN meetings.
- Coordinate PI training by HPA's for BERT members.

### 5. Develop an Improvement Theory

If we implement the Evacuation Time log sheet, and provide additional staff training; as well as adjust for competing priorities, we will be able to reach our goal to safely decrease fire drill evacuation time.

Goal: To safely decrease fire drill evacuation time from the initial 22

minutes to 5 minutes by 12/31/2016.

#### DO

Test the Theory for Improvement

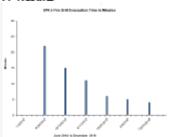
#### 6. Test the Theory

PDSA cycles Q6 months with review of Evacuation tracking sheets. BERT Quarterly meetings and brainstorm using fishbone diagram each PDSA cycle until goal is reached.

#### CHECK

Use Data to Study Results of the Test

#### 7. Results



### ACT

Standardize the Improvement and Establish Future Plans

### Standardize the Improvement or Develop New Theory Reached goal.

### 9. Establish Future Plans

Fire Drill Evacuation PDSA cycles annually. Will implement PDSA cycles for times later in the day and with stair evacuations.





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